



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/504,782	02/15/2000	Masahiro Kume	0819-337	8307

22204 7590 09/24/2002

NIXON PEABODY, LLP
8180 GREENSBORO DRIVE
SUITE 800
MCLEAN, VA 22102

EXAMINER

FLORES RUIZ, DELMA R

ART UNIT PAPER NUMBER

2828

DATE MAILED: 09/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/504,782

Applicant(s)

KUME ET AL.

Examiner

Delma R. Flores Ruiz

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 31-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 31-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.



PAUL IP

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1 – 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Furukawa et al (5,981,977).

Regarding claims 1 – 3, Furukawa discloses a semiconductor laser device comprising; a first cladding (see Fig. 2C Character 24) layer, which is made of a nitride

semiconductor of a first conductivity type and is formed over a substrate (see Fig. 2C Character 12); an active layer (see Fig. 2C Character 26) , which is made of another nitride semiconductor and is formed over the first cladding layer; and a second cladding (see Fig. 2C Character 28), which is made of still another nitride semiconductor of a second conductivity type and is formed over the active layer, wherein a spontaneous emission absorbing (see Fig. 2C Characters 14, 22, and 30) layer, which is made of the another nitride semiconductor of the first conductivity type and absorbs spontaneous emission that has been radiated from the active layer, is formed between the substrate and the first cladding layer (see Figs. 2A-D, Abstract, Column 1, lines 27 – 59, Column 2, lines 1 – 11, 29 – 44, 53 – 63, Column 4, lines 20 – 64). The spontaneous emission-absorbing layer contains indium and is formed in contact with the first cladding layer and substrate (see Fig. 2A-D, Column 8, lines 6 – 16, Column 10, lines 7 – 23).

Regarding claims 4 – 6 Furukawa discloses a semiconductor laser device comprising ; a first cladding (see Fig. 2C Character 24) layer, which is made of a nitride semiconductor of a first conductivity type and is formed over a substrate (see Fig. 2C Character 12); an active layer (see Fig. 2C Character 26) , which is made of another nitride semiconductor and is formed over the first cladding layer; and a second cladding (see Fig. 2C Character 28), which is made of still another nitride semiconductor of a second conductivity type and is formed over the active layer, an electrode (see Fig. 1A Character 50 and 52) formed over the second cladding layer; wherein a spontaneous

emission absorbing (see Fig. 2C Characters 14, 22, and 30) layer, which is made of yet another nitride semiconductor of the second conductivity type and absorbs spontaneous emission that has been radiated from the active layer, is formed between the second cladding layer and electrode (see Figs. 2A-D, Abstract, Column 1, lines 27 – 59, Column 2, lines 1 – 11, 29 – 44, 53 – 63, Column 4, lines 20 – 64). The spontaneous emission-absorbing layer contains indium and is formed in contact with the second cladding layer and electrode (see Fig. 2A-D, Column 8, lines 6 – 16, Column 10, lines 7 – 23).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 31 – 33 are rejected under 35 U.S.C. 102(b) as being anticipated by
Kuhara et al (5,787,215)

Regarding claims 31 – 33 Kuhara discloses a semiconductor laser device comprising; a semiconductor laser chip (see Fig. 6 Character 29); a photoelectric (see Fig. 6, Character 30) transducer for receiving laser radiation that has been emitted from

the semiconductor laser chip and detecting a value of optical output power of the semiconductor laser chip; and means for blocking at least part of spontaneous emission that has been radiated from the semiconductor laser chip, the blocking means being provided between a portion of the semiconductor laser chip from which the laser radiation is emitted and a portion of the photoelectric transducer at which the laser radiation is received, the blocking means is provided such that the spontaneous emission attenuates at a ratio high that the laser radiation while passing through the blocking means, the blocking means is a light-blocking plate with an opening, and through which an optical axis of the laser radiation passes (Column 4, lines 1 – 67, Column 5, lines 1 – 31, Column 10, lines 62 – 67, Column 11, lines 1 – 14, Column 16, lines 3 – 24, Column 17, lines 33 – 41, Column 21, lines 54 – 67, Column 22, lines 1 – 14).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 34 and 35 rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhara et al (5,787,215) in view of Furukawa et al (5,981,977).

Regarding claims 34 and 35 Kuhara discloses the claimed invention except for the semiconductor laser chip includes a substrate made of a material transmitting the laser radiation the semiconductor, the semiconductor laser chip is made of nitride semiconductor and wherein the substrate is made of sapphire, silicon carbide or gallium nitride. It would have been obvious to one having ordinary skill in the art at the time the invention was made to semiconductor laser chip includes a substrate made of a material transmitting the laser radiation the semiconductor, the semiconductor laser chip is made of nitride semiconductor and wherein the substrate is made of sapphire, silicon carbide or gallium nitride, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delma R. Flores Ruiz whose telephone number is (703) 308-6238. The examiner can normally be reached on M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Application/Control Number: 09/504,782
Art Unit: 2828

Page 7

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-

3431



Delma R. Flores Ruiz
Examiner
Art Unit 2828



Paul Ip
Supervisor Patent Examiner
Art Unit 2828

DRFR/PI
September 20, 2002